

CLAIMS

1. A fibrous structure comprising at least one layer of randomly distributed continuous strands and at least one reinforcing fabric layer, the various layers of the structure being linked together by a mechanical means or a chemical means.
2. The structure as claimed in the preceding claim, characterized in that the continuous strand layer has a mass per unit area ranging from 200 to 700 g/m².
3. The structure as claimed in the preceding claim, characterized in that the continuous strand layer has a mass per unit area ranging from 350 to 550 g/m².
4. The structure as claimed in one of the preceding claims, characterized in that the reinforcing fabric layer is made of chopped strands.
5. The structure as claimed in the preceding claim, characterized in that the reinforcing fabric layer has a mass per unit area ranging from 100 to 600 g/m².
6. The structure as claimed in the preceding claim, characterized in that the reinforcing fabric layer has a mass per unit area ranging from 200 to 400 g/m².
7. The structure as claimed in any one of claims 4 to 6, characterized in that the chopped strands have a length ranging from 1 to 15 cm.
8. The structure as claimed in one of the preceding claims, characterized in that it includes a second reinforcing fabric layer, located on the other side of the continuous strand layer from the first reinforcing fabric layer.
9. The structure as claimed in the preceding claim, characterized in that it includes at least one veil forming at least one of the two external faces of the structure.
10. The structure as claimed in the preceding claim, characterized in that at least one veil has a mass per unit area ranging from 10 to 60 g/m².
11. The structure as claimed in the preceding claim, characterized in that at least one veil has a mass per unit area ranging from 20 to 40 g/m².

12. The structure as claimed in one of the preceding claims, characterized in that the various non-veil fabric layers are bound together by stitching.
13. The structure as claimed in one of claims 1 to 11, characterized in that the various non-veil fabric layers are bound together by needle punching.
14. The structure as claimed in one of the preceding claims, characterized in that the loops of the continuous strand layer are bound together by a binder.
15. The structure as claimed in one of claims 1 to 14, characterized in that the various fabric layers are bound together pairwise by a binder.
16. The structure as claimed in one of the preceding claims, characterized in that the continuous strand layer includes notches for increasing its deformability.
17. The structure as claimed in the preceding claim, characterized in that the notches have a length ranging from 0.01 to 0.35 times the width of the continuous strand layer.
18. The structure as claimed in either of the two preceding claims, characterized in that the direction of the notches is that of the width of the structure.
19. The structure as claimed in one of claims 16 to 18, characterized in that the notches have a length ranging from 0.5 to 30 cm.
20. The structure as claimed in one of claims 16 to 19, characterized in that the notches are present in an amount from 30 to 200 notches per m² of continuous strand layer.
21. The structure as claimed in one of the preceding claims, characterized in that the continuous strand layer is made of glass.
22. The structure as claimed in one of the preceding claims, characterized in that the reinforcing fabric layer is made of glass.
23. A composite having a structure of one of the preceding claims.
24. A process for the continuous production of a fibrous structure comprising at least one layer of randomly distributed continuous strands and two reinforcing fabric layers, the continuous strand layer being placed between the two reinforcing fabric layers, comprising the following steps:

- production of a first chopped strand layer by depositing chopped strands on a moving belt; then

- production of the continuous strand layer on the first chopped strand layer, by producing loops; and then

- 5 - production of a second chopped strand layer by depositing chopped strands on the continuous strand layer, the various fabric layers of said structure then being linked together by at least one binder and/or at least one mechanical means.

25. A process for the batch production of a fibrous structure comprising at least one layer of randomly distributed continuous strands and two reinforcing fabric layers, the continuous strand layer being placed between the two reinforcing fabric layers, comprising the following steps:

- production of a first chopped strand layer by depositing chopped strands on a moving belt or by unwinding a roll of chopped strand mat; then

- 15 - production of the continuous strand layer on top of the first chopped strand layer by producing loops or by unwinding the continuous strand layer in the form of a mat from a roll, continuously because of the fact that the belt continues to run; and then

20 - production of a second chopped strand layer on the continuous strand layer by depositing chopped strands or by unwinding a roll of chopped strand mat, this step being carried out continuously because of the fact that the belt continues to run, the various fabric layers of said structure then being linked together by at least one binder and/or at least one mechanical means.

26. The process as claimed in the preceding claim, characterized in that the continuous strand layer is unwound in the form of a mat from a roll and in that it includes notches.